

REMARKS

This Amendment is being submitted in response to the Office Action dated December 18, 2003. Upon submission of this Amendment, claims 1-19 are pending. Reconsideration of the Application as submitted is respectfully requested.

Claim 19 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention. It is respectfully submitted that claim 19 has been amended to particularly point out and distinctly claim the subject matter that Applicants' regard as the invention.

Claims 1, 4, 5, 7-10 and 12-15 are rejected under 35 U.S.C. § 102(b) as being anticipated by Newkirk (U.S. Patent No. 4,883,707). It is respectfully submitted that Newkirk does not teach a composite material for producing a layer of a disposable absorbent hygienic article that comes into physical contact with the body, made of at least two non-woven material layers joined by thermal processing, where the upper layer for physical contact with the body is formed of a mixture of mono-component fibers and bi-component fibers and the percentage of bi-component fibers amounts to 30-70% by weight of the upper layer, and where the denier of the fibers of the upper layer is at most 3.5 dtex, and where the lower layer includes at least 40% by weight of bi-component fibers whose higher melting component is made of PET and whose lower melting component has a lower melting point than that of the mono-component fibers of the upper layer, and where the denier of the bi-component fibers of the lower layer is between 4 and 10 dtex, as taught in claim 1 of the present invention and claims 4-5, 7-10 and 12-15 depending therefrom.

Newkirk discloses high loft nonwoven fabric composites, suitable for use as coverstock in absorbent personal care articles, that are composed of at least two corded webs of bicomponent thermoplastic resin fibers, wherein the fibers making up at least one web are at least in part flat-crimped biocomponent fibers.

Newkirk does not disclose a composite material where the upper layer for physical contact with the body is formed of a mixture of mono-component fibers

and bi-component fibers, as the present invention discloses in claim 1. Newkirk does not use mono-component fibers at all.

Furthermore, Newkirk does not specify a particular usage of bicomponent fibers as disclosed in column 3, lines 4-6. As quoted from column 3, lines 4-6 "any type of thermoplastic bicomponent fibers can be used in the manufacture of the high loft nonwoven fabrics of this invention." This affirmation is in direct contrast with the disclosure of the present invention wherein the denier of the bi-component fibers of the lower layer is between 4 and 10 dtex, as disclosed in claim 1. As disclosed in column 2, lines 39-44 "the high loft converstock of this invention is composed of a carded web layer comprising crimped thermoplastic fibers having an average denier of 3 or less." It is respectfully submitted that the denier of the Newkirk thermoplastic fiber is not the same material nor the same quantity as the bi-component fiber denier of the present invention. The Newkirk bi-component fibers fall within the range of 1.5 to 3 depending on the material used, this fact is disclosed in column 3, lines 26-34 of the Newkirk patent, which is different from what is disclosed in claim 1 of the present invention.

Additionally, Newkirk does not disclose a composite material where the percentage of bi-component fibers amounts to 30-70% by weight of the upper layer and where the lower layer includes at least 40% by weight of bi-component fibers, as disclosed in claim 1. For these reasons, it is respectfully submitted that claim 1 and the claims depending therefrom, are submitted not to be anticipated by Newkirk.

Claims 1, 4-10 and 12-15 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Barge et al. (U.S. Patent No. 5,989,688). Applicants' attorney respectfully disagrees with the Examiner's rejection of claims 1, 4-10 and 12-15 under 35 U.S.C. § 103 (a) as being unpatentable over Barge. Applicants' attorney respectfully disagrees with the Examiner for the various following reasons.

The Examiner asserts that Barge discloses "the support layer may function as the coverstock in an absorbent article (column 4, lines 32-39), and would therefore be the body-contacting layer." Applicant acknowledges the Examiner's

assertion but would like to draw the Examiner back to the fundamental fact that Barge discloses the composite non-woven is primarily generated by "forming a first bulky layer containing carded fibers on top of the first support layer, and bonding the combination of the support layer and the bulky layer," column 4, lines 12-15. As the composite non-woven is primarily disclosed, the support layer is not the body contacting layer. Other variations of using the support layer exist but the primary usage is where the bulky layer is on top of the support layer, resulting in the bulky layer being the body-contacting layer.

The Examiner also asserts that Barge discloses "the support layer fibers preferably have a dtex of 1.7 to 3.3 (column 6, line 35)." Using the primary embodiment of the invention where the bulky layer is a top the support layer and comparing the primary embodiment to Applicants' present invention, the Barge support layer corresponds to the lower layer of the present invention. As such, the Barge support layer dtex of 1.7 to 3.3 is not the same as the 4 to 10 dtex of the lower layer of the present invention as disclosed in claim 1. Furthermore, analyzing the primary embodiment of the Barge invention discloses usage of bi-component fibers in the lower layer and the upper layer consisting of similar fineness. In column 6, lines 29-38, Barge discloses the support layer will typically have a fineness in the range of 1.7-3.3 dtex and when the bulky layer includes bi-component fibers, these will typically have a similar fineness preferably within the range of 1.7-3.3 dtex. This concept is different from the concept of the present invention where the upper layer is at most 3.5dtex and the lower layer is between 4 and 10 dtex as set forth in claim 1. As such, Barge teaches away from using a two layer composite material where the upper layer and the lower level use different levels of fineness as set forth in claim 1 of the present invention.

The Examiner also asserts that Barge discloses "the support layer may be made from a mixture of single component fibers and bicomponent fibers (column 6, lines 18-28)." Applicants respectfully disagree, in column 6, lines 18-28, the wording is "the support layer will typically comprise synthetic fibers or filaments, or bicomponent fibers of the type mentioned above, or a mix of synthetic fibers or

filaments and cellulose fiber. . ." Applicants respectfully assert there is no conjunction of single component fibers and bicomponent fibers in Barge, there is usage of one i.e. single or usage of the other i.e. bicomponent. This teaches away from the disclosure in claim 1 of the present invention.

The Examiner also acknowledges "Barge et al. fails to disclose that this mixture comprises 30-70% by weight bicomponent fibers. However, discovering the optimum ratio of bicomponent fibers to single component fibers would be an obvious matter of optimizing a result effective variable."

Applicants' attorney respectfully disagrees with the Examiner. Applicants' attorney respectfully submits that it is not obvious to discover the optimum ratio of bicomponent fibers to single component fibers in order to yield the percentage of bicomponent fibers amounting to 30-70% by weight of the upper layer, as disclosed in claim 1 of the present invention. Applicants' attorney respectfully requests that the Examiner produce a piece of prior art that exemplifies the disclosure of claim 1 from the present invention.

Furthermore, the Examiner asserts "the bulky layer meets the limitations of the lower layer because Barge et al. disclose the fibers in the range of 5-12 dtex (column 6, lines 63-64) and may consist essentially of bicomponent fibers (column 6, line 46) that contain PET (column 6, lines 7-11)." Applicants would like to point out that the embodiment of the Barge invention uses two bulky layers (column 6, lines 60) and the bulky layer comprising fibers in the range of 5-12 dtex is the first bulky layer (upper), the bulky layer comprising fibers in the range of 1 to 5 is the second bulky layer (lower). Barge discloses fiber ranges in the upper bulky layer and lower bulky layer that contradict the fiber ranges set forth in claim 1 of the present invention.

For the reasons set forth, Applicants' invention in claims 1, 4-10 and 12-15 is not obvious and is patentable over Barge.

Claims 2 and 3 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Newkirk in view of Winebarger (U.S. Patent No. 5,057,357). The Examiner asserts that "Newkirk discloses pattern bonding through air (column 4,

lines 13-24), but fail to disclose creating a textured pattern through calendering. Winebarger teaches that a softer coverstock may be achieved by calendering the nonwoven and creating a pattern with a bond area of 7.5 to 30% (column 5, lines 13-16). It would have been obvious to a person having ordinary skill in the art at the time of the invention to create a textured pattern by calendering the coverstock of Newkirk in order to create a softer material, as taught by Winebarger."

The combination of Newkirk, with the calendering of Winebarger does not anticipate, teach or suggest a composite material where the upper layer for physical contact with the body is formed of a mixture of monocomponent fibers and bi-component fibers and where the lower layer includes at least 40% by weight of bi-component fibers as set forth in claim 1 from which claims 2 and 3 depend. As such, Applicants' invention in claims 2-3 is not obvious and patentably defines over Barge in view of Winebarger.

Claim 6 is rejected under 35 U.S.C. § 103 (a) as being unpatentable over Newkirk in view of Barge et al. It is respectfully submitted that the combination of Newkirk and Barge does not anticipate, teach or suggest a composite material where the upper layer for physical contact with the body is formed of a mixture of mono-component fibers and bi-component fibers and the percentage of bi-component fibers amounts to 30 - 70 % by weight of the upper layer, and where the denier of the fibers of the upper layer is at most 3.5 dtex, and where the denier of the bi-component fibers of the lower layer is between 4 and 10 dtex as set forth in claim 1 which claim 6 depends. As such, Applicants' invention in claim 6 is not obvious and patentably defines over Newkirk in view of Barge et al.

Claim 11 is rejected under 35 U.S.C. § 103 (a) as being unpatentable over Newkirk in view of Lloyd et al. (U.S. Statutory Invention Reg. No. H1698). It is respectfully submitted that the combination of Newkirk and Lloyd does not anticipate, teach or suggest a composite material a composite material where the upper layer for physical contact with the body is formed of a mixture of mono-component fibers and bi-component fibers and the percentage of bi-component fibers amounts to 30 - 70 % by weight of the upper layer, and where the denier of the fibers

of the upper layer is at most 3.5 dtex, and where the denier of the bi-component fibers of the lower layer is between 4 and 10 dtex as set forth in claim 1 from which claim 11 depends. As such, Applicants' invention in claim 11 is not obvious and patentably defines over Newkirk in view of Lloyd.

Claim 11 is rejected under 35 U.S.C. § 103 (a) as being unpatentable over Barge et al. in view of Lloyd et al. It is respectfully submitted that the combination of Barge and Lloyd does not anticipate, teach or suggest a composite material a composite material where the upper layer for physical contact with the body is formed of a mixture of mono-component fibers and bi-component fibers and the percentage of bi-component fibers amounts to 30 - 70 % by weight of the upper layer, and where the denier of the fibers of the upper layer is at most 3.5 dtex, and where the denier of the bi-component fibers of the lower layer is between 4 and 10 dtex as set forth in claim 1 from which claim 11 depends. As such, Applicants' invention in claim 11 is not obvious and patentably defines over Barge in view of Lloyd.

Claims 16-19 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Newkirk in view of Hermann et al. (DE 4,338,326). The Examiner asserted in section 12 of the Office Action that "Newkirk discloses the limitations of the fluid-permeable layer as set forth above in section 4, but Newkirk fails to disclose the structure for the absorbent core or retaining layer. Hermann et al. discloses an absorbent core material having multiple layers. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use the absorbent core of Hermann et al. in the product of Newkirk in order to provide an absorbent product with sufficient acquisition and distribution properties."

It is respectfully submitted that it would not have been obvious to one of ordinary skill in the art at the time of the invention to combine the absorbent core of Hermann with the product of Newkirk. Combining Hermann and Newkirk does not yield an absorbent hygienic article having a fluid-tight layer not in physical contact with the body during use, a retaining element and a fluid-permeable layer provided on the side of the retaining element in physical contact with the body, where

the retaining element comprises one layer of intralinked cellulose fibers with a fluid retention value which is derived from the quotients of the mass (g_{FI}) of the fluid absorbed and the dry mass (g_{Fiber}) of the cellulose fibers and is between 0.6 and 0.9 g_{FI}/g_{Fiber} , wherein the layer of intralinked cellulose fibers contains 8-15% by weight of super absorbent polymer materials, where the fluid-permeable layer provided on the side of the retaining element in physical contact with the body is at least double-layered and an upper of the double layers consist of fibers with a denier of at most 3.5 dtex, while a lower of the double layers comprises bi-component fibers with a denier between 4 and 10 dtex whose higher melting component is made of PET, as disclosed in claim 16 and the claims depending therefrom.

Applicant asserts that the high denier lofty layer of Newkirk is 3 or greater and that the low denier soft layer of Newkirk is 3 or less as disclosed in column 2, lines 39-44. As such, the combination of Hermann and Newkirk teaches away from the teachings of the present invention as disclosed in claim 16. Additionally, the high denier lofty layer and the low denier soft layer of Newkirk are comprised of crimped thermoplastic fibers and thermoplastic fibers, respectfully, which teaches away from the disclosure of claim 16 and the claims depending therefrom, in the present invention.

Furthermore, the Examiner asserted "it would have been obvious to a person having ordinary skill in the art at the time of the invention to use between 8 and 15% super absorbent material in the upper layer in order to provide optimal absorbency and distribution of liquid, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art."

Applicants respectfully disagree with the Examiner. As the Examiner acknowledged "Herman et al. teaches adding super absorbent material to upper layer, but do not disclose the amount," as such, Applicants re-asserts it is not obvious to use between 8 and 15% super absorbent material in the upper level. If the present invention as recited in claim 16 is obvious, the Examiner is requested to cite a prior art reference or combination of references that teaches a retaining element comprising one layer of intralinked cellulose fibers, where the layer of intralinked

cellulose fibers contains 8-15% by weight of super absorbent polymer materials, as taught in claim 16 and claims 17-19 depending therefrom in the present invention.

Claims 16-19 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Barge et al. in view of Hermann et al. It is respectfully submitted that it would not have been obvious to one of ordinary skill in the art at the time of the invention to combine the absorbent core of Hermann in the product of Barge. Combining Barge and Hermann does not yield an invention as disclosed in claim 16 and claims 17-19 depending therefrom, of the present invention. Furthermore, Applicant respectfully disagrees with the Examiner's additional assertion that "it would have been obvious to a person having ordinary skill in the art at the time of the invention to use between 8 and 15% super absorbent material in the upper layer in order to provide optimal absorbency and distribution of liquid." If the present invention as recited in claim 16 is obvious, the Examiner is requested to cite a prior art reference or combination of references that teach or render obviousness an invention as disclosed in claim 16 and claims 17-19 depending therefrom in the present invention.

Claims 16-19 are rejected under 35 U.S.C. § 103 (a) as being obvious over Malowaniec (U.S. Patent No. 6,630,611) in view of Newkirk. Claims 16-19 are rejected under 35 U.S.C. § 103 (a) as being obvious over Malowaniec in view of Barge et al. Claims 16-19 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,630,611 in view of Newkirk and in view of Barge, respectively.

As suggested by the Examiner, a Declaration of Common Ownership and a Terminal Disclaimer are being submitted to overcome these rejections. In conclusion, Applicants respectfully submit that all rejections are overcome, claims 1-19 are patentable over the cited references singularly and in any combination of the references. Allowance of the application as submitted is respectfully requested.

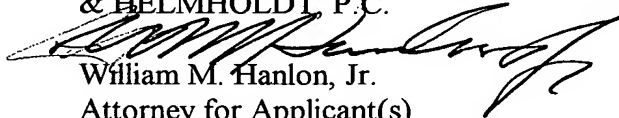
If the Examiner feels the prosecution of the present application can be expedited by way of an Examiner's Amendment, the Examiner is invited to contact the Applicant's attorney at the telephone number listed below.

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Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'William M. Hanlon, Jr.', is written over the printed name.

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